

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-056054

(43)Date of publication of application : 24.02.1998

(51)Int.Cl.

H01L 21/68  
C23C 16/46  
C23F 4/00  
H01L 21/203  
H01L 21/205  
H01L 21/3065

(21)Application number : 08-211730

(71)Applicant : FUJITSU LTD

(22)Date of filing : 09.08.1996

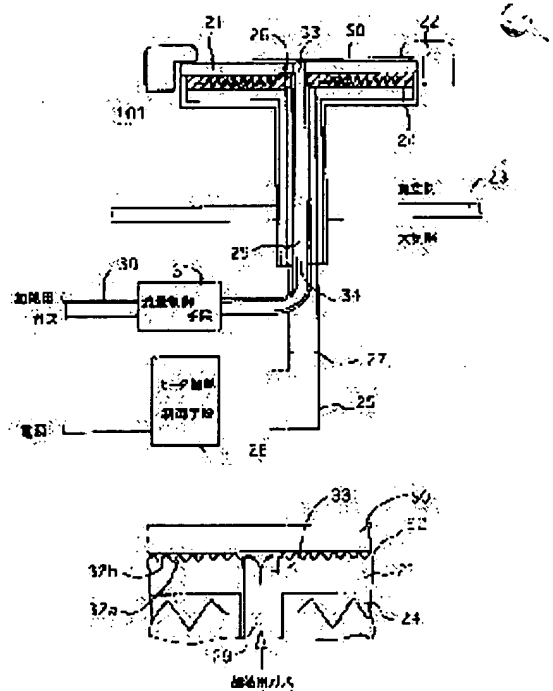
(72)Inventor : FUJII MAKOTO  
HASEGAWA MASAYUKI

**(54) SUBSTRATE MOUNTING STAGE WITH HEATER, FILM FORMING DEVICE AND ETCHING DEVICE**

**(57)Abstract:**

**PROBLEM TO BE SOLVED:** To perform the uniform heating of a substrate by forming minute convex parts and concave parts between the convex parts on the entire surface of the substrate mounting surface of a substrate mounting stage, and uniformly spreading the heating gas discharged through the gas discharging port of the substrate mounting surface over the entire body of the substrate through the concave parts.

**SOLUTION:** A substrate mounting stage 101 with a heater is provided in a vacuum processing chamber. A substrate mounting stage 21 is made of aluminum. A heater 24, which is the heat source, and a thermocouple 26, which monitors the temperature of a substrate so, are embedded in the substrate mounting stage 21. At the central part of the substrate mounting stage 21, a flow path 29, which guides heating gas to the substrate mounting surface, is formed. In the entire surface of the substrate mounting surface, minute convex parts 32a and convex parts 32b between the convex parts 32a are formed. When the substrate 50 is mounted on the substrate mounting surface, the heating gas discharged from the flow path 29 freely flows in all directions in the concave parts 32b between the convex parts 32a. Since the concave parts 32b are formed in uniform density, the heating gas uniformly spreads over the entire body of the substrate 50.



## LEGAL STATUS

[Date of request for examination]

06.09.2002

[Date of sending the examiner's decision of

rejection]

[Kind of final disposal of application other than  
the examiner's decision of rejection or  
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of  
rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office